

Accepted Manuscript

Loop energy: A useful indicator of the hardness of minerals from depth-sensing indentation tests

Toshiaki Masuda, Yasutomo Omori, Ryoko Sakurai, Tomoya Miyake, Mirai Yamanouchi, Yumiko Harigane, Atsushi Okamoto, Katsuyoshi Michibayashi



PII: S0191-8141(18)30444-9

DOI: [10.1016/j.jsg.2018.09.004](https://doi.org/10.1016/j.jsg.2018.09.004)

Reference: SG 3736

To appear in: *Journal of Structural Geology*

Received Date: 18 December 2017

Revised Date: 29 August 2018

Accepted Date: 4 September 2018

Please cite this article as: Masuda, T., Omori, Y., Sakurai, R., Miyake, T., Yamanouchi, M., Harigane, Y., Okamoto, A., Michibayashi, K., Loop energy: A useful indicator of the hardness of minerals from depth-sensing indentation tests, *Journal of Structural Geology* (2018), doi: 10.1016/j.jsg.2018.09.004.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **Loop energy: a useful indicator of the hardness of minerals from depth-sensing**
2 **indentation tests**

3

4 Toshiaki Masuda,^{1,2,*} Yasutomo Omori,^{1,2} Ryoko Sakurai,¹ Tomoya Miyake,¹ Mirai
5 Yamanouchi,¹ Yumiko Harigane,^{1,3} Atsushi Okamoto,^{1,4} and Katsuyoshi Michibayashi^{1,5}

6

7

8 ¹Institute of Geosciences, Shizuoka University, Ohya 836, Suruga-ku, Shizuoka 422-8529, Japan

9 ²Center for Integrated Research and Education of Natural Hazards, Shizuoka University, Ohya 836, Suruga-ku,
10 Shizuoka 422-8529, Japan

11 ³Geological Survey of Japan, AIST, Umezono 1-1-1, Tsukuba 305-8567, Japan

12 ⁴Graduate School of Environmental Studies, Tohoku University, Aramaki 468-1, Aoba-ku, Sendai 980-8579,
13 Japan

14 ⁵Department of Earth and Planetary Sciences, Graduate School of Environmental Studies, Nagoya University,
15 Nagoya, 464-8601, Japan

16

17 *Corresponding author

18 E-mail: masuda.toshiaki@shizuoka.ac.jp

19 Tel: +81-54-238-4785

20 Postal address: Center for Integrated Research and Education of Natural Hazards, Shizuoka University, Ohya
21 836, Suruga-ku, Shizuoka 422-8529, Japan

22

23 **Key-words:** Depth-sensing indentation test; Loop energy; Mohs hardness scale; New graphic
24 presentation; Penetration depth.

25

26 ‘Declarations of interest: none’

Download English Version:

<https://daneshyari.com/en/article/10224389>

Download Persian Version:

<https://daneshyari.com/article/10224389>

[Daneshyari.com](https://daneshyari.com)